The objection to the specification is respectfully traversed. The specification has been amended to correct the headings and to add a heading relating to the detailed description of exemplary embodiments of the invention. Accordingly, the objection is overcome, and reconsideration and withdrawal thereof are respectfully requested.

The rejection of claims 1-3 and 5. under 35 U.S.C. § 102(e) over Hoff et al. (U.S. Patent No. 5,978,373, hereinafter "Hoff") is respectfully traversed. Without acquiescing in the rejection, claim 1 has been amended for clarity. Accordingly, the rejection will be discussed with respect to the claims as amended.

Exemplary embodiments of the present invention are directed to the allocation of a protocol (IP) address *by a proxy to a device*, when a device is newly connected to an existing network. One of the purposes of the present invention, for example, is to enable this allocation to be done by a proxy device which can perform the allocation and also control the testing of potential IP addresses for conflict with existing addresses in a simple and efficient manner that does not require the intervention of a highly skilled operator. To this end, according to exemplary embodiments of the invention, the operation of allocating IP addresses is initiated and controlled by a proxy that is not part of the new device (*e.g.*, a device that has been connected to the network and needs a protocol address allocated to it).

In typical prior art systems, of which Hoff is an example, when a new device (such as Hoff's ATU-C) is introduced to the network, there is an exchange of messages between the new device and a server (not a proxy). Thus, the prior art requires that all new devices include the relevant software and possibly additional hardware to accomplish this

exchange. This requirement for direct transaction with the server by the new device to allocate an address represents an undesirable overhead on the server in terms of time and processing.

There is no teaching or suggestion anywhere in Hoff of using a proxy to conduct the allocation of an address for a new device. Instead, and directly contrary to the claimed invention, Hoff teaches that the new device communicates directly with the server, a situation that the claimed invention is seeking to avoid by using a proxy.

There is a fundamental problem when attempting to read Hoff to cover the claimed invention. In particular, which of the ATU-C and the authorization server is the device requiring an address and which will read on the "proxy" of the claimed invention. Because the "device" is what requires an allocation of an IP address, the "device" of the claim must be the ATU-C of Hoff. An alternative reading is not possible, because the server is the source of addresses.

The Office Action alleges that Hoff teaches "placing on the network an interrogation in the form of a first frame from a proxy." This is simply not the case. The first control message in Hoff (*see* Figure 2) is an ARP request sent by the device to the authorization server. Even if one were to improperly read the authorization device to be a proxy, the control frame is not being sent *from* the proxy. Additionally, the assertion in the Office Action that Hoff teaches "receiving at the proxy a response in the form of a second control frame which defines an invalid protocol address for said device" is simply incorrect. In particular, the Office Action is referring to line (c) of Figure 2, namely the AR directed response with authorization server MAC address. Not only does this not

have an invalid protocol address, it is not received at the proxy, since the new device cannot be the proxy, and serves only to provide the MAC address of the server to the ATU-C unit.

Moreover, Hoff does not use a control frame as claimed because Hoff sets up a dedicated link by means of the unicast ARP response, thus, Hoff does not need to distinguish the presence of a valid and invalid IP address which is the new device that needs an IP address.

The allegation in the Office Action that Hoff discloses sending from the proxy to the device a third control frame that includes a protocol address is likewise incorrect. While the Office Action recites the teaching in Hoff that the ATU-C associates the MAC address with IP address and sends it to the server, this is not what the claim requires. It is the device which is sending a control frame to the server. This is manifestly *not* the claimed sending of a control frame *from* the proxy *to* the device. Furthermore, the message to which the Office Acton refers is sending a message with the server's IP address and the server's MAC address to the server as part of a DHCP request to the server. It is manifestly not an allocation of the IP address to the device by the server, and much less the allocation of an IP address to the device by a proxy.

In short, all of the shortcomings of the Office Action stem from the simple fact that there is no disclosure or suggestion in Hoff of using a proxy to allocate an IP address to a new device on the network. Without such a teaching, the reading of other devices as somehow covering or reading on the proxy must fail because of the specifically recited

features attributed to the transaction between the proxy and the device in the claimed invention.

It is axiomatic that in order for a reference to anticipate a claim, the reference must disclose, teach or suggest each and every feature of the claimed invention. As set forth above, Hoff fails to disclose, teach or suggest each and every feature of the claimed invention. In particular, Hoff fails to disclose or suggest the claimed proxy and the manner in which it is used according to the claimed invention. The lack of a proxy in Hoff results in the inability of Hoff to anticipate the manner in which the proxy interacts with the device and other elements to allocate an IP address to the new device. Therefore, Hoff fails to anticipate the claimed invention. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

The rejection of claims 4 and 6 under 35 U.S.C. § 103(a) over Hoff in view of the applicants' admitted prior art (AAPA) is respectfully traversed.

It is respectfully submitted that the AAPA fails to overcome the fundamental deficiencies noted above with respect to Hoff. Therefore, even if, arguendo, the combination of Hoff and the AAPA were proper, the combination nevertheless fails to render the claimed invention obvious. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

In view of the foregoing, it is respectfully submitted that the entire application is in condition for allowance. Favorable reconsideration of the application and prompt allowance of the claims are earnestly solicited.

Should the Examiner deem that further issues require resolution prior to allowance, the Examiner is invited to contact the undersigned attorney of record at the telephone number set forth below.

Respectfully submitted,

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MARKED-UP VERSION OF SPECIFICATION AMENDMENTS

Heading at page 1, line 5:

[Field of the Invention] **FIELD OF THE INVENTION**

Heading at page 1, line 11:

[Background of the Invention] **BACKGROUND OF THE INVENTION**

Heading at page 2, line 1:

[Summary of the Invention] **SUMMARY OF THE INVENTION**

Heading at page 2, line 14:

[Brief Description of the Drawings] **BRIEF DESCRIPTION OF THE DRAWINGS**

At page 2, at line 29, insert the following heading:

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS

MARKED-UP VERSION OF AMENDED CLAIM

1. (*Amended*) A method of allocating a protocol address to a device connected to a packet-based communication network, comprising:

placing on the network an interrogation in the form of a first control frame from a proxy, said proxy being separate from said device;

receiving at the proxy a response from said device in the form of a second control frame which defines an invalid protocol address for said device; and

in response to said invalid protocol address, sending from the proxy to said device a third control frame which includes a protocol address allocated to said device.